

RECEIVED

1642

MAY 19 2000

PAGE: 1

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/468,147ATECH CENTER 1600/2900
DATE: 04/27/2000
TIME: 09:02:25

Input Set: I468147A.RAW

This Raw Listing contains the General Information
Section and up to first 5 pages.

P#5

ENTERED

P.5

1 <110> APPLICANT: Abbott Laboratories
2 Schlauder, George G.
3 Erker, James C.
4 Desai, Suresh M.
5 Dawson, George J.
6 Mushahwar, I. K.
7 <120> TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR DETECTING
8 HEPATITIS E VIRUS
9 <130> FILE REFERENCE: 6232.US.P1
10 <140> CURRENT APPLICATION NUMBER: US/09/468,147A
11 <141> CURRENT FILING DATE: 1999-12-21
12 <150> EARLIER APPLICATION NUMBER: US 09/173,141
13 <151> EARLIER FILING DATE: 1998-10-15
14 <150> EARLIER APPLICATION NUMBER: US 60/061,199
15 <151> EARLIER FILING DATE: 1997-10-15
16 <160> NUMBER OF SEQ ID NOS: 258
17 <170> SOFTWARE: FastSEQ for Windows Version 3.0
18 <210> SEQ ID NO 1
19 <211> LENGTH: 18
20 <212> TYPE: DNA
21 <213> ORGANISM: Artificial Sequence
22 <220> FEATURE:
23 <223> OTHER INFORMATION: Primer C375M
24 <400> SEQUENCE: 1
25 ctgaacatcc cggccgac 18
26 <210> SEQ ID NO 2
27 <211> LENGTH: 19
28 <212> TYPE: DNA
29 <213> ORGANISM: Artificial Sequence
30 <220> FEATURE:
31 <223> OTHER INFORMATION: Primer A1-350M
32 <400> SEQUENCE: 2
33 agaaagcagc gatggagga 19
34 <210> SEQ ID NO 3
35 <211> LENGTH: 21
36 <212> TYPE: DNA
37 <213> ORGANISM: Artificial Sequence
38 <220> FEATURE:
39 <223> OTHER INFORMATION: Primer S1-34M
40 <400> SEQUENCE: 3
41 gccaccagt tcattaaggc t 21
42 <210> SEQ ID NO 4
43 <211> LENGTH: 20
44 <212> TYPE: DNA

PAGE: 2

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/468,147ADATE: 04/27/2000
TIME: 09:02:25

Input Set: I468147A.RAW

45 <213> ORGANISM: Artificial Sequence
46 <220> FEATURE:
47 <223> OTHER INFORMATION: Primer A2-320M
48 <400> SEQUENCE: 4
49 tcattaatgg agcgtgggtg 20
50 <210> SEQ ID NO 5
51 <211> LENGTH: 20
52 <212> TYPE: DNA
53 <213> ORGANISM: Artificial Sequence
54 <220> FEATURE:
55 <223> OTHER INFORMATION: Primer S2-55M
56 <400> SEQUENCE: 5
57 cctggcatca ctactgctat 20
58 <210> SEQ ID NO 6
59 <211> LENGTH: 18
60 <212> TYPE: DNA
61 <213> ORGANISM: Artificial Sequence
62 <220> FEATURE:
63 <223> OTHER INFORMATION: Primer C375
64 <400> SEQUENCE: 6
65 ctgaacatca cgcccaac 18
66 <210> SEQ ID NO 7
67 <211> LENGTH: 19
68 <212> TYPE: DNA
69 <213> ORGANISM: Artificial Sequence
70 <220> FEATURE:
71 <223> OTHER INFORMATION: Primer A1-350
72 <400> SEQUENCE: 7
73 aggaagcagc ggtggacca 19
74 <210> SEQ ID NO 8
75 <211> LENGTH: 20
76 <212> TYPE: DNA
77 <213> ORGANISM: Artificial Sequence
78 <220> FEATURE:
79 <223> OTHER INFORMATION: Primer S1-34
80 <400> SEQUENCE: 8
81 gcccatcagt ttattaaggc 20
82 <210> SEQ ID NO 9
83 <211> LENGTH: 20
84 <212> TYPE: DNA
85 <213> ORGANISM: Artificial Sequence
86 <220> FEATURE:
87 <223> OTHER INFORMATION: Primer A2-320
88 <400> SEQUENCE: 9
89 tcatttattg agcgggggatg 20
90 <210> SEQ ID NO 10
91 <211> LENGTH: 20
92 <212> TYPE: DNA
93 <213> ORGANISM: Artificial Sequence
94 <220> FEATURE:

PAGE: 3

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/468,147A

DATE: 04/27/2000
TIME: 09:02:25

Input Set: I468147A.RAW

```

95 <223> OTHER INFORMATION: Primer S2-55
96 <400> SEQUENCE: 10
97 cctggcatca ctactgctat 20
98 <210> SEQ ID NO 11
99 <211> LENGTH: 25
100 <212> TYPE: DNA
101 <213> ORGANISM: Artificial Sequence
102 <220> FEATURE:
103 <223> OTHER INFORMATION: Primer M1PR6
104 <400> SEQUENCE: 11
105 ccatgttcca caccgtattc cagag 25
106 <210> SEQ ID NO 12
107 <211> LENGTH: 25
108 <212> TYPE: DNA
109 <213> ORGANISM: Artificial Sequence
110 <220> FEATURE:
111 <223> OTHER INFORMATION: Primer S4294M
112 <400> SEQUENCE: 12
113 gtgttctacg gggatgctta tgacg 25
114 <210> SEQ ID NO 13
115 <211> LENGTH: 25
116 <212> TYPE: DNA
117 <213> ORGANISM: Artificial Sequence
118 <220> FEATURE:
119 <223> OTHER INFORMATION: Primer M1PF6
120 <400> SEQUENCE: 13
121 gactcagtat tctctgctgc cgtgg 25
122 <210> SEQ ID NO 14
123 <211> LENGTH: 25
124 <212> TYPE: DNA
125 <213> ORGANISM: Artificial Sequence
126 <220> FEATURE:
127 <223> OTHER INFORMATION: Primer A4556
128 <400> SEQUENCE: 14
129 ggctcaccag aatgcttctt ccaga 25
130 <210> SEQ ID NO 15
131 <211> LENGTH: 342
132 <212> TYPE: DNA
133 <213> ORGANISM: Hepatitis E Virus
134 <220> FEATURE:
135 <223> OTHER INFORMATION: Clone: USP-15
136 <400> SEQUENCE: 15
137 gcccatcagt ttattaaggc tcctggcatt actactgcca ttgagcaggc tgctctggct 60
138 gcggccaatt ctgccttggc gaatgctgtg gtggttcggc cgtttttatc tcgcgtgcaa 120
139 accgagattc ttattaattt gatgcaaccc cggcagttgg ttttccgccc tgagggtactt 180
140 tggaatcacc ctatccagcg ggtatacat aatgaattag aacagtactg ccgggctcgg 240
141 gctggtcggt gcttggaggt tggagctcac ccaagatcca ttaatgacaa cccaacggt 300
142 ctgcatcggt gtttccttag accggtcggg cgtgatgttc ag 342
143 <210> SEQ ID NO 16
144 <211> LENGTH: 20

```

PAGE: 4

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/468,147A

DATE: 04/27/2000
TIME: 09:02:25

Input Set: I468147A.RAW

```

145 <212> TYPE: DNA
146 <213> ORGANISM: Artificial Sequence
147 <220> FEATURE:
148 <223> OTHER INFORMATION: Primer PA2-5560
149 <400> SEQUENCE: 16
150 taggttatac tgccggcgca 20
151 <210> SEQ ID NO 17
152 <211> LENGTH: 20
153 <212> TYPE: DNA
154 <213> ORGANISM: Artificial Sequence
155 <220> FEATURE:
156 <223> OTHER INFORMATION: Primer S1-5287
157 <400> SEQUENCE: 17
158 ttctcagccc ttcgcaatcc 20
159 <210> SEQ ID NO 18
160 <211> LENGTH: 20
161 <212> TYPE: DNA
162 <213> ORGANISM: Artificial Sequence
163 <220> FEATURE:
164 <223> OTHER INFORMATION: Primer S2-5310
165 <400> SEQUENCE: 18
166 atattcatcc aaccaacccc 20
167 <210> SEQ ID NO 19
168 <211> LENGTH: 251
169 <212> TYPE: DNA
170 <213> ORGANISM: Hepatitis E Virus
171 <220> FEATURE:
172 <223> OTHER INFORMATION: Clone: b421
173 <400> SEQUENCE: 19
174 atattcatcc aaccaacccc ttcgccgccg atgtcgtttc acaacccggg gctggaactc 60
175 gccctcgaca gccgccccgc cccctcggtt ccgcttggcg tgaccagtcc cagcgcccct 120
176 ccgttgcccc ccgtcgtcga tctacccag ctggggctgc gccgctaact gccatatcac 180
177 cagccctga tacagctcct gtacctgatg ttgactcacg tgggtgctatt ttgcgccggc 240
178 agtataacct a 251
179 <210> SEQ ID NO 20
180 <211> LENGTH: 20
181 <212> TYPE: DNA
182 <213> ORGANISM: Artificial Sequence
183 <220> FEATURE:
184 <223> OTHER INFORMATION: Primer US4.2-69S/20
185 <400> SEQUENCE: 20
186 ttccgcttgg cgtgaccagt 20
187 <210> SEQ ID NO 21
188 <211> LENGTH: 21
189 <212> TYPE: DNA
190 <213> ORGANISM: Artificial Sequence
191 <220> FEATURE:
192 <223> OTHER INFORMATION: Primer US4.4/144s
193 <400> SEQUENCE: 21
194 gctaactgcc atatcaccag c 21

```

PAGE: 5

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/468,147A

DATE: 04/27/2000
TIME: 09:02:25

Input Set: I468147A.RAW

```

195 <210> SEQ ID NO 22
196 <211> LENGTH: 20
197 <212> TYPE: DNA
198 <213> ORGANISM: Artificial Sequence
199 <220> FEATURE:
200 <223> OTHER INFORMATION: Primer M6417a
201 <400> SEQUENCE: 22
202 cccttatcct gctgagcatt 20
203 <210> SEQ ID NO 23
204 <211> LENGTH: 24
205 <212> TYPE: DNA
206 <213> ORGANISM: Artificial Sequence
207 <220> FEATURE:
208 <223> OTHER INFORMATION: Primer M6371a
209 <400> SEQUENCE: 23
210 ttggctcgcc attggctgag acaa 24
211 <210> SEQ ID NO 24
212 <211> LENGTH: 899
213 <212> TYPE: DNA
214 <213> ORGANISM: Hepatitis E Virus
215 <220> FEATURE:
216 <223> OTHER INFORMATION: Clone: df-orf2/3
217 <400> SEQUENCE: 24
218 gctaactgcc atatcaccag cccctgatac agctcctgta cctgatgttg actcacgtgg 60
219 tgctattttg cgccggcagt acaatttgtc tacgtccccg cttacatcat ctgttgcttc 120
220 tggtaactaat ctggttctct atgctgcccc gctgaaccct ctcttgccctc ttcaggatgg 180
221 caccaacact catattatgg ctactgaggc atctaattac gccagtatc gggttgttcg 240
222 ggctacgatt cgttatcgcc cgttgggtgcc aaatgctgtt ggtgggttatg ctatctctat 300
223 ttctttctgg cctcaaaacta caactacccc tacttctgtt gacatgaatt ctatcacttc 360
224 tactgatgtc aggatcttgg tccagcccg gtagcctcc gagttagtca tccctagtga 420
225 acgccttcac taccgcaacc aaggctggcg ctctgttgag accacgggtg tggccgaaga 480
226 ggaggctacc tccggtctgg taatgctttg tattcatggc tcccctgtta actcctacac 540
227 taatacacct tacaccggtg cattggggct tcttgatttt gcattagaac ttgaatttag 600
228 aaatttgaca cccgggaaca ctaacaccgg tgtttcccg gatactagca cagcccgcga 660
229 ccggtcgcg cgcggtgctg atgggaccgc tgagctcacc accacagcag ccacacgctt 720
230 catgaaggat ttgcatttta ctggtacgaa cggcggttggg gaggtgggtc gtggtattgc 780
231 cctgactctg tttaatcttg ctgatacgct tcttggtggg ttaccgacag aattgatttc 840
232 gtcggctggg ggtcaactgt tttactcccc cctgttgtgc tcagccaatg gcgagccaa 899
233 <210> SEQ ID NO 25
234 <211> LENGTH: 20
235 <212> TYPE: DNA
236 <213> ORGANISM: Artificial Sequence
237 <220> FEATURE:
238 <223> OTHER INFORMATION: Primer USP 3s/20
239 <400> SEQUENCE: 25
240 tggcattact actgccattg 20
241 <210> SEQ ID NO 26
242 <211> LENGTH: 20
243 <212> TYPE: DNA
<213> ORGANISM: Artificial Sequence

```

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Input Set: I468147A.RAW

Line	Error/Warning	Original Text
866	W "N" or "Xaa" used: Feature required	tttctgcttt ccgcgctncc ctggaaaaaa aaaaaaaa
1498	W "N" or "Xaa" used: Feature required	Trp Pro Ala Asp Val Ala Glu Ala Met Ala A
1522	W "N" or "Xaa" used: Feature required	Trp Asn Ala Ser Glu Asp Ala Leu Thr Ala X
1612	W "N" or "Xaa" used: Feature required	Leu Val Pro Ala Ile Arg Pro Glu Leu Ala P
1618	W "N" or "Xaa" used: Feature required	Asn Glu Pro Ala Ile Gly Gln Lys Leu Val X
1630	W "N" or "Xaa" used: Feature required	Xaa His Arg Pro Ser Val Ile Pro Arg Gly A
1650	W "N" or "Xaa" used: Feature required	Asn Arg Asp Val Ser Arg Ile Thr Phe Phe G
1760	W "N" or "Xaa" used: Feature required	Xaa Gln Thr Thr Tyr Gly Ser Ser Thr Asn P
1766	W "N" or "Xaa" used: Feature required	Ile Gln Gln Tyr Ser Lys Lys Phe Tyr Val L
1774	W "N" or "Xaa" used: Feature required	Thr Ser Xaa Ser Ala Val Gly Val Leu Ala P
3203	W "N" or "Xaa" used: Feature required	Asp Xaa Leu Met Leu Phe Gly Ala Thr Leu X
3217	W "N" or "Xaa" used: Feature required	Gln Cys Arg Arg Trp Leu Ser Ala Gly Phe H
3241	W "N" or "Xaa" used: Feature required	Gly Leu Asp Cys Thr Ala Thr Phe Pro Xaa G
3243	W "N" or "Xaa" used: Feature required	Ala Pro Gly Glu Val Xaa Ala Phe Cys Ser A
3263	W "N" or "Xaa" used: Feature required	Asp Gly Ala Lys Val Tyr Ala Gly Ser Leu X
3357	W "N" or "Xaa" used: Feature required	Xaa Glu Phe Arg Asp Phe Arg Val Ala Ala P
3359	W "N" or "Xaa" used: Feature required	Val Val Leu Cys Ser Asp Tyr Arg Gln Xaa A
3373	W "N" or "Xaa" used: Feature required	Thr Ile Ala Asp Gly Lys Ala His Phe Thr X
3396	W "N" or "Xaa" used: Feature required	Arg Pro Leu Xaa Ser Ala Trp Arg Asp Gln S
3414	W "N" or "Xaa" used: Feature required	Asn Ser Ile Thr Ser Xaa Asp Val Arg Ile L
3440	W "N" or "Xaa" used: Feature required	Leu Gly Asp Ser Arg Val Val Ile Gln Asp T
3490	W "N" or "Xaa" used: Feature required	Xaa Pro Leu Gly Val Thr Ser Pro Ser Ala P
3597	W "N" or "Xaa" used: Feature required	Ala Glu Tyr Xaa Gln Thr Thr Tyr Gly Ser S
3605	W "N" or "Xaa" used: Feature required	Xaa Gly Lys Leu Ser Phe Trp Glu Ala Gly T
3611	W "N" or "Xaa" used: Feature required	Ala Gly Pro Thr Ser Xaa Ser Ala Val Gly V
3643	W "N" or "Xaa" used: Feature required	Gln Xaa Glu Gln Asp Arg Pro Thr Pro Ser P
3831	W "N" or "Xaa" used: Feature required	Leu Pro Ala Pro Pro Ala Gly Gln Xaa Thr G
4049	W "N" or "Xaa" used: Feature required	His Arg Pro Ala Xaa Arg Leu Ala Ala Val V
4426	W "N" or "Xaa" used: Feature required	Gly Xaa Thr Thr Xaa Ile Glu Gln Ala Ala L
4442	W "N" or "Xaa" used: Feature required	Pro Pro Val Asp Arg Thr Tyr Cys Xaa Asp
4481	W "N" or "Xaa" used: Feature required	Thr Glu Xaa Ile Ser Ser Ala Gly Gly Gln L
4487	W "N" or "Xaa" used: Feature required	Leu Gly Asp Ser Arg Val Val Ile Gln Asp T
4540	W "N" or "Xaa" used: Feature required	Gly Xaa Thr Thr Xaa Ile Glu Gln Ala Ala L
4556	W "N" or "Xaa" used: Feature required	Pro Pro Val Asp Arg Thr Tyr Cys Xaa Asp
4595	W "N" or "Xaa" used: Feature required	Thr Glu Xaa Ile Ser Ser Ala Gly Gly Gln L
4601	W "N" or "Xaa" used: Feature required	Leu Gly Asp Ser Arg Val Val Ile Gln Asp T
4839	W "N" or "Xaa" used: Feature required	nnnnccctggc atnactactg cnattgagca ngcngctc
4840	W "N" or "Xaa" used: Feature required	ngcgaatgct gtggtngtnn ggccnttnnt ntcncnnn
4841	W "N" or "Xaa" used: Feature required	nntnatgcaa ccncgncagn tngtnttncg nccngagg
4842	W "N" or "Xaa" used: Feature required	ncgngtnatn cataangann tngancnnta ntgncngn
4843	W "N" or "Xaa" used: Feature required	nnttgngcn canccnngnt cnatnaanga naanccna
4844	W "N" or "Xaa" used: Feature required	nnnnccngnn ggncgngatg ttcagcgntg gtanncng
4845	W "N" or "Xaa" used: Feature required	naantgncgn ngntcngcnn tncngngnct nccnncng
4846	W "N" or "Xaa" used: Feature required	nggnttnncn ngntgnnnnt ttncngcnga
4919	W "N" or "Xaa" used: Feature required	acngagncnn tnaanccnnt nctnganntn acanantc
4920	W "N" or "Xaa" used: Feature required	ataacatgtn ntttgcnncg cccatgggnt nnnnacca
4921	W "N" or "Xaa" used: Feature required	gntgntcctc ntgtttntgc ctatnttgcc cgcgccac
4922	W "N" or "Xaa" used: Feature required	ncgncgtggg cggcgcagcg gcggtncggg cgggtggtt
4923	W "N" or "Xaa" used: Feature required	tcagcccttc gcnntccctt atattcatcc aaccaacc
4996	W "N" or "Xaa" used: Feature required	ngcnctnacn ntntnaanc ttgctganac nctnctng

Input Set: I468147A.RAW

Line	Error/Warning	Original Text
4997	W "N" or "Xaa" used: Feature required	ttcgtcggct ggnggncanc tgttntantc ncgncncg
4998	W "N" or "Xaa" used: Feature required	nacngtnaag ntntanacat cngtngagaa tgcncagc
4999	W "N" or "Xaa" used: Feature required	ncanganatn ganntnggng antcncnggt ngtnatnc
5000	W "N" or "Xaa" used: Feature required	ncangancgn
5050	W "N" or "Xaa" used: Feature required	Gly Xaa Thr Thr Xaa Ile Glu Gln Ala Ala L
5066	W "N" or "Xaa" used: Feature required	Pro Pro Val Asp Arg Thr Tyr Cys Xaa Asp
5107	W "N" or "Xaa" used: Feature required	Thr Glu Xaa Ile Ser Ser Ala Gly Gly Gln L
5109	W "N" or "Xaa" used: Feature required	Xaa Val Ser Ala Asn Gly Glu Pro Thr Val L
5113	W "N" or "Xaa" used: Feature required	Leu Gly Asp Ser Arg Val Val Ile Gln Asp T
5166	W "N" or "Xaa" used: Feature required	Gly Xaa Thr Thr Xaa Ile Glu Gln Ala Ala L
5182	W "N" or "Xaa" used: Feature required	Pro Pro Val Asp Arg Thr Tyr Cys Xaa Asp
5218	W "N" or "Xaa" used: Feature required	Xaa Val Xaa Ala Asn Gly Glu Pro Thr Val L
5222	W "N" or "Xaa" used: Feature required	Leu Gly Asp Ser Arg Val Val Ile Gln Asp T
5279	W "N" or "Xaa" used: Feature required	Gly Xaa Thr Thr Xaa Ile Glu Gln Ala Ala L
5283	W "N" or "Xaa" used: Feature required	Thr Glu Ile Leu Ile Asn Leu Met Xaa Pro A
5289	W "N" or "Xaa" used: Feature required	Ala His Pro Arg Ser Ile Asn Asp Asn Pro A
5295	W "N" or "Xaa" used: Feature required	Pro Pro Val Asp Arg Thr Tyr Cys Xaa Asp
5334	W "N" or "Xaa" used: Feature required	Thr Glu Xaa Ile Ser Ser Ala Gly Gly Gln L
5340	W "N" or "Xaa" used: Feature required	Leu Gly Asp Ser Arg Val Val Ile Gln Asp T